

Patent Claims

1. A liquid crystal display having two opposed substrates (1), a liquid crystalline medium (2) contained between the substrates, and a plurality of electrodes (5) arranged on the substrates to produce a multiplicity of pixels (11), characterized in that the electrodes (5) are configured in such fashion that the pixels (11) have round contours.

2. The liquid crystal display as claimed in the preceding claim, wherein the electrodes (5) are configured in such fashion that the pixels (11) have roughly circular contours.

3. The liquid crystal display as claimed in any one of the preceding claims, wherein the electrodes (5) possess bulging sections (6) with a rounded, in particular circular-segmental, outer contour, as well as connecting sections (9) linking said bulging sections in a string-type configuration, with the relative orientation of the electrodes (5) disposed on different substrates (1) being such that their bulging sections (6) lie opposite each other, being in particular turned through about 90° relative to one another and adding up to form a pixel.

4. The liquid crystal display as claimed in claim 3, wherein the bulging sections (6) form diametrically opposed sectors (7), particularly circular sectors, with a sector angle ( $\alpha$ ) of at least about 90 degrees, preferably about 90 degrees.

5. The liquid crystal display as claimed in any one of the preceding claims, characterized in that the bulging sections (6) of the electrodes (11) which are complementary to form pixels (11) are configured in such fashion that in the presence of an offset of the substrates (1) in the two axial directions, which is due to manufacturing tolerances, pixels

(11) are still producible whose outer contour includes circular sections and corners with obtuse included internal angles.

6. The liquid crystal display as claimed in claim 5, characterized in that the corners of the outer contour or the tangents applied to the corners define between them an internal angle of between  $90^\circ$  and  $180^\circ$ , in particular an internal angle of between  $120^\circ$  and  $180^\circ$ .

7. The liquid crystal display as claimed in one of the two preceding claims, wherein the connecting sections (9) have an enlarged cross-section (10) outside an area of overlap with the opposite electrode (5).

8. The liquid crystal display according to the prior-art portion of claim 1, wherein the electrodes (5) are configured in such fashion that the pixels (11) have a contour in the form of a polygon with more than four sides, in particular an essentially octagonal contour.

9. The liquid crystal display as claimed in the preceding claim, wherein the electrodes are configured in such fashion that the pixels (11) have a contour in the form of a polygon with rounded corners.

10. The liquid crystal display as claimed in one of the two preceding claims, wherein neighboring sides of the polygon define between them an internal angle of  $\geq 100$  degrees, preferably  $\geq 120$  degrees.

11. The liquid crystal display as claimed in any one of the preceding claims, wherein the electrodes (5) possess bulging sections (6) with a polygonal outer contour, as well as connecting sections (9) linking said bulging sections in a string-type configuration, with the electrodes (5) disposed on

different substrates (1) being configured such that their bulging sections lie opposite each other.

12. The liquid crystal display as claimed in any one of the preceding claims, wherein the pixels (11) are arranged in a  
5 raster, with the raster distance between neighboring pixels amounting to between 0.5 mm and 1 mm, preferably between 0.6 mm and 0.8 mm, being in particular of the order of about 0.7 mm.

13. The use of the liquid crystal display according to any one of the preceding claims in electrical appliances for  
10 personal use, in particular in blood pressure monitoring devices.